Proportional
Architecture
BY
Equal Parts.
Fa. Smith Sculp.

BRITISH MUSEUM

Proportional ARCHITECTURE;

or, the Five Orders;

regulated by EQUAL PARTS:

After so concise a Method that renders it Useful to all Artists and Easy to every Capacity.

Ineſt gratia parvis.

LONDON:
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MVSEVM
BRITAN
NICVM

INTRODUCTION.

Finding our selves as well as most of our fellow-workmen perplex'd in practising according to the rules laid down in Books of ARCHITECTURE, *we industriously employ'd our time and thoughts, some Years since, to bring them into a more regular and useful method.*

In order therefore to remove those impediments which have obstructed the study of that Noble Art, *we have here attempted to render the understanding of the* Five Orders *more intelligible, and the use of some* other Rules *more practicable, presuming, that it will be equally necessary to those who bear the Purse, and to those who perform the Work, many of which for various reasons cannot peruse those many Volumes that treat thereof.*

We hope the conciseneſs of this small Tract will not prejudice it, but rather, that the practicableneſs will recommend it, to both the ingenious Theoriſt, *and industrious* Workman; *whose favourable acceptance will encourage us to present the publick with some other useful improvements.*

Of the Five Orders of ARCHITECTURE.

Every Order *is comprehended under* three *principal Parts, (viz) The* Pedeſtal, *the* Column, *and the* Entablature; *and each Part conſiſts of three Denominations. The Pedeſtal having its* Baſe[a], Die[b], *and* Cornice[c]; *the Column, its* Baſe[d], Shaft[e], *and* Capital[f]; *and the Entablature its* Architrave[g], Frize[h], *and* Cornice[i]. *See the Plate, Page 6.*

I. Of the Tuſcan *Order*

Any height being given, Divide it into ten Parts *and three Quarters, called* Diameters. (*By Diameter is meant the thickneſs of the Shaft at the bottom*) *The Pedestal having two; the Column with Base and Capital, seven, and the Entablature, one and three Quarters.*

II Of the Doric *Order.*

The Whole height being given, is Divided into twelve Diameters, or Parts, and one third; the Pedestal having two and one third, the Column eight, and the Entablature two.

III *Of the* Ionic *Order*

The Whole height is Divided into thirteen Diameters and a half; the Pedestal having two and two thirds, the Column nine, and the Entablature one & four fifths.

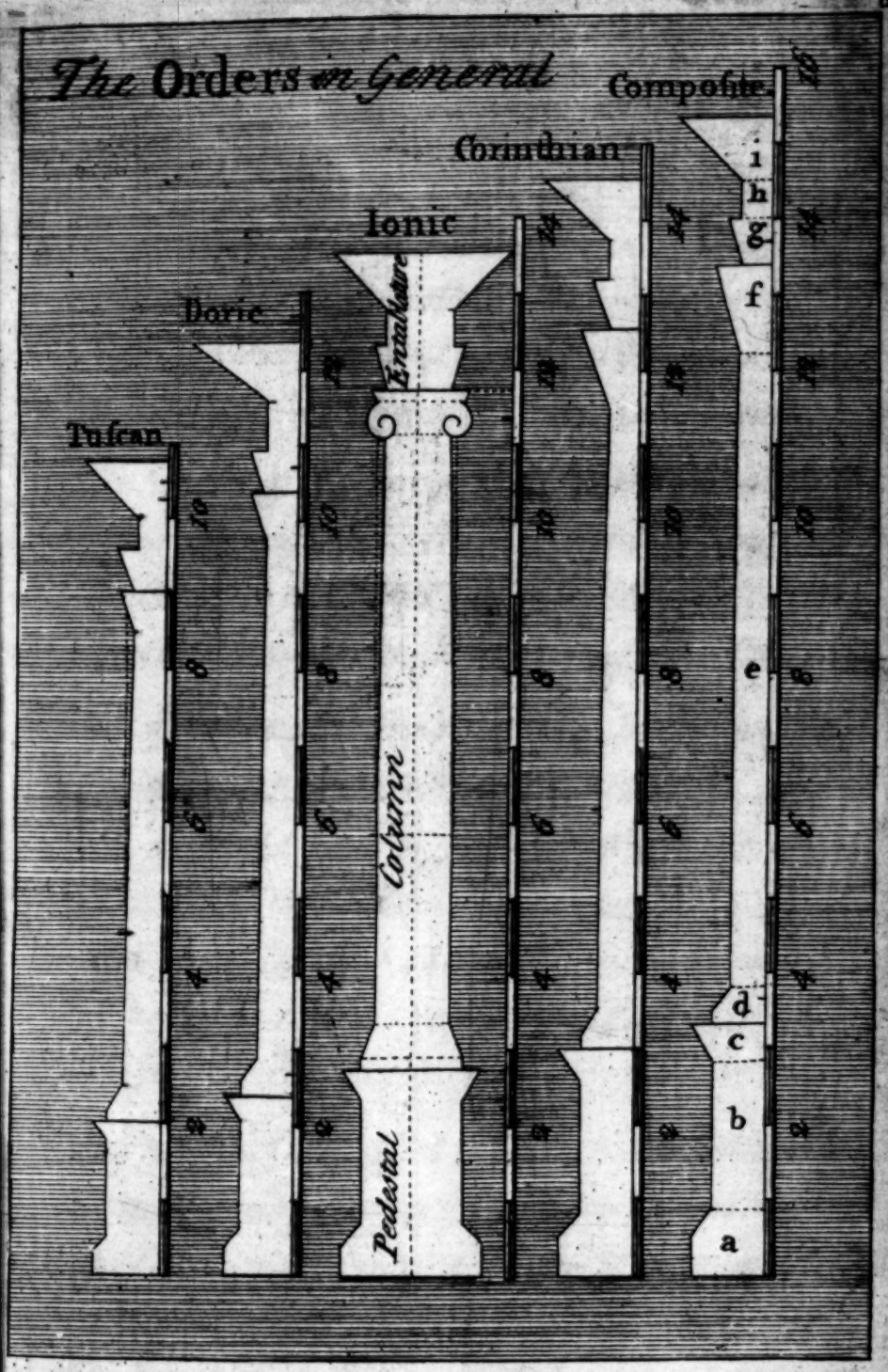
IIII *Of the* Corinthian *Order*

The Whole height is Divided into fourteen Diameters and a half; the Pedestal having three, the Column nine and a half, and the Entablature two .

V *Of the* Composite *Order.*

The Whole height is Divided into fifteen Diameters and one third; the Pedestal having three and one third, the Column ten, and the Entablature two .

In a Colonade *or range of Pillars &* Intercolumniation *or space between two Columns in the* Tuscan *Order is four Diameters . In the* Doric *Order two and three Quarters. In the* Ionic *Order two and a Quarter . In the* Corinthian *Order two : And in the* Composite *Order one and a half .*


The Orders in General
Compoſite
Corinthian
Ionic
Dorie
Tuſcan
Entablature
Columne
Pedeſtal
i
h
g
f
e
d
c
b
a

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Tuſcan Order

Pedeſtal

The height of the Pedeſtal being two Diameters is Divided into 4, giving 1 to the Baſe, whoſe plinth[a] is $\frac{1}{3}$ thereof, the other part is Divided into 3, giving 1 to the Fillet[b], and 2 to the Hollow.[c] The breadth of the Die, or Naked is 1 Diameter and $\frac{1}{3}$: And the Projection of the Baſe is equal to its height, the Fillet hath $\frac{1}{4}$ thereof.

The height of the Cornice is half the Baſe being $\frac{1}{8}$ of the whole height, and is Divided into 8; giving 2 to the Hollow[a], 1 to the Fillet[c], and 5 to the Band;[d] ye Projection is equal to the Base, and the Fillet hath 3 of these Parts.

Baſe

Baſe of the Column: The height is $\frac{1}{2}$ a Diameter, and is Divided into 6 Parts, giving 3 to the Plinth, 2 and $\frac{1}{2}$ to the Torus[b], and $\frac{1}{2}$ a Part to the Fillet; the whole Projection is $\frac{1}{3}$ of its height, and the Fillet equal to its height. The Hollow or Cincture[i] is $\frac{1}{4}$ of a Circle in all the Orders and belongs to the Shaft of the Column.

The Diminiſhing of this Column is $\frac{1}{4}$ of ye Diameter see page 11

Capital

The height of the Capital is $\frac{1}{2}$ a Diameter, and is Divided into 9, giving 2 $\frac{1}{2}$ to the Frize[k] of the Capital, $\frac{1}{2}$ a part to the Fillet, 3 to the Ovolo[l] & 3 to the Abacus;[m] The whole Projection is $\frac{2}{3}$ of the Diameter being perpendicular to ye Body of ye Column below & ye Fillet projects equal to its height. The

Collerino . Architrave . Cornice

Collerino.

The Collerino[a] or Necking of all the Orders in general is one of those 9 Parts in the Capital, and the Fillet half a part; the Projection is 1 and $\frac{1}{4}$ of these parts, and the Fillet equal to its height.

The height of the Entablature being 1 Diameter and $\frac{3}{4}$, is Divided into 6, giving 2 to the Architrave, 1 and $\frac{1}{2}$ to the Frize, and 2 $\frac{1}{2}$ to the Cornice.

Architrave.

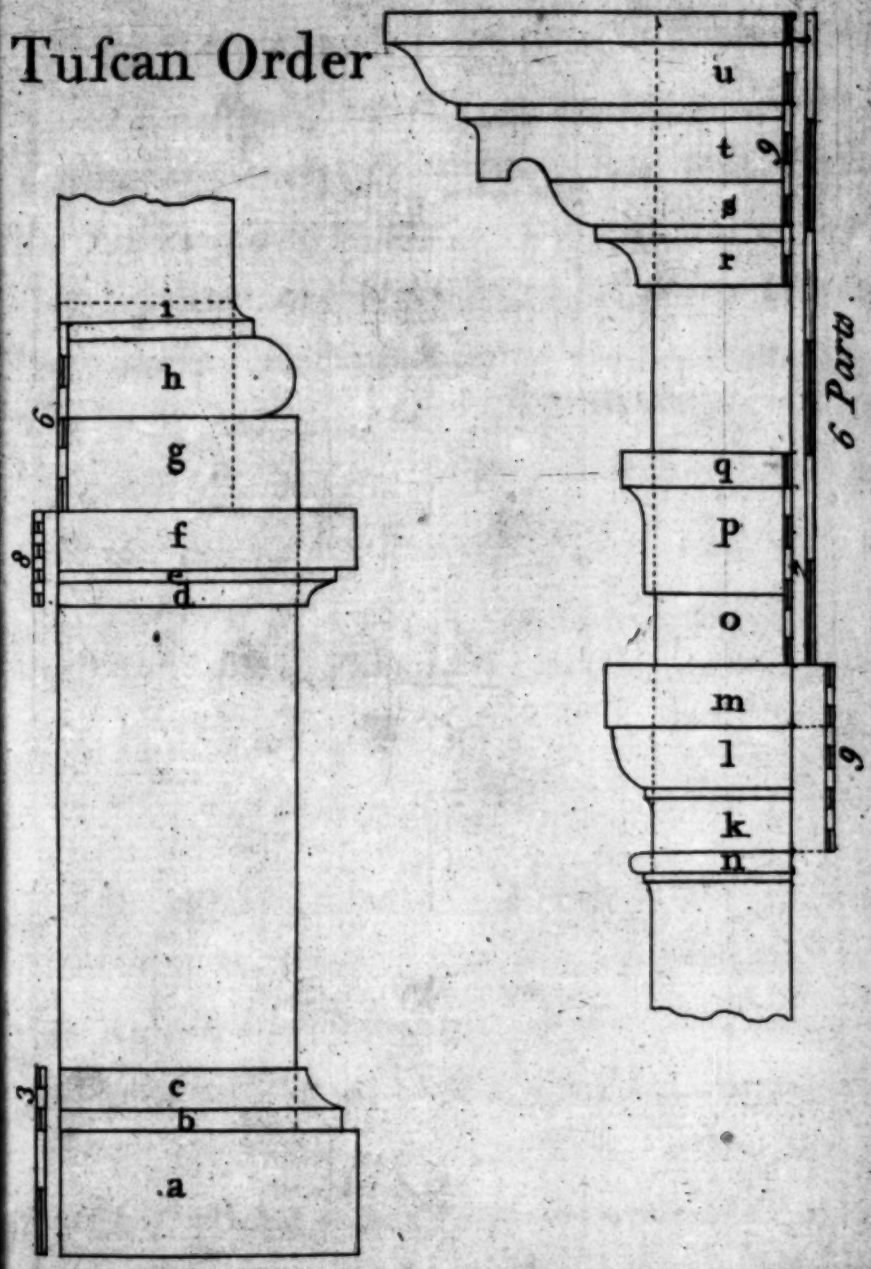
For the Members of the Architrave, Divide the height into 7 parts, giving 2 and $\frac{1}{2}$ to the first face[o], 3 and $\frac{1}{2}$ to the second[p], and 1 to the band at Top[q]; the Projection is equal to the band and the second face a third thereof.

NB. The first face of all the Architraves is perpendicular to the Naked of the Column at the Top.

Cornice.

For the Cornice, Divide the height into 9, giving 1 $\frac{1}{2}$ to the Hollow[r], $\frac{1}{2}$ a part to the Fillet, 1 and $\frac{1}{2}$ to the Ovolo[s], 2 to the Corona[t], $\frac{1}{2}$ a part to the Fillet, 2 to the Scima Recta[u], and 1 to the Fillet. For the Projections, the Hollow hath 2 of these parts, the Ovolo 3 & $\frac{1}{2}$, the Corona 6, the Fillet 6 and $\frac{1}{2}$, and the Whole 9, being equal to the height.

Tuſcan Order



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Doric Order.

Pedestal

The height of the Pedestal *being 2 Diameters and ⅔, is Divided into 4, giving 1 to the Base whose plinth is ⅔ thereof; the other part is Divided into 7, giving 4 to the Torus, 1 to the Fillet and 2 to the Hollow, the breadth of the Die is a Diameter and ⅓; the* Projection *of the Base is equal to its height, and the Fillet hath 4 of those parts. The height of the Cornice is half the Base, being ⅛ of the Whole height, and is Divided into 9, giving 2 to the Hollow, 1 to the Fillet, 5 to the Corona, and 1 to the Fillet; — the* Projection *of the Hollow is 3 of these parts, the Corona 6, and the Whole seven.*

Base

Base *of the Column. The height is ¼ a Diameter and is Divided into 6, giving 2 to the Plinth, 1 and ¾ to the lower Torus, ¼ to the Fillet, 1 to the Scotia, ¼ to the Fillet, and 1 to the upper Torus, the Fillet above the Torus is equal to the others, and is part of the Column; the* Projection *is 2 of these parts, & ⅓ thereof is for y^e^ upper Fillet, ⅔ to y^e^ upper Torus, the Fillet under it is perpendicular to y^e^ Center*

Base

For forming y^e SCOTIA *Divide the height into 3, as in the Scheme, and on the line that seperates the one part above, from the two parts below, & perpendicular to the Fillet, is the Center for the first Quarter sweep, & y^e same distance forwards on the line is the Center for the other Quarter, and is also the projecture of the lower Fillet.*

Capital

The Diminishing *of this Column is* $\frac{2}{3}$ *of the Diameter. The height of the* Capital *is* $\frac{1}{2}$ *a Diameter, and is Divided into 9, giving 3 to the Frize of the Capital, 1 to the Fillets, which are 3 and are equal, two to the Ovolo, two to the Abacus, and 1 to the Ogee,[b] and Fillet which is* $\frac{1}{3}$. *For the* Projections *the Fillets have one of these parts, the Abacus 3, and the Whole 4.*

Archi.

The height of y^e Architrave *is* $\frac{1}{2}$ *a Diameter, and is Divided into 6 parts, giving two to the first face, two to the second, one to the Bells[c] and Fillet which is* $\frac{1}{3}$, *and one to the Band at top. The* Projection *is equal to the Band.*

The

Frize

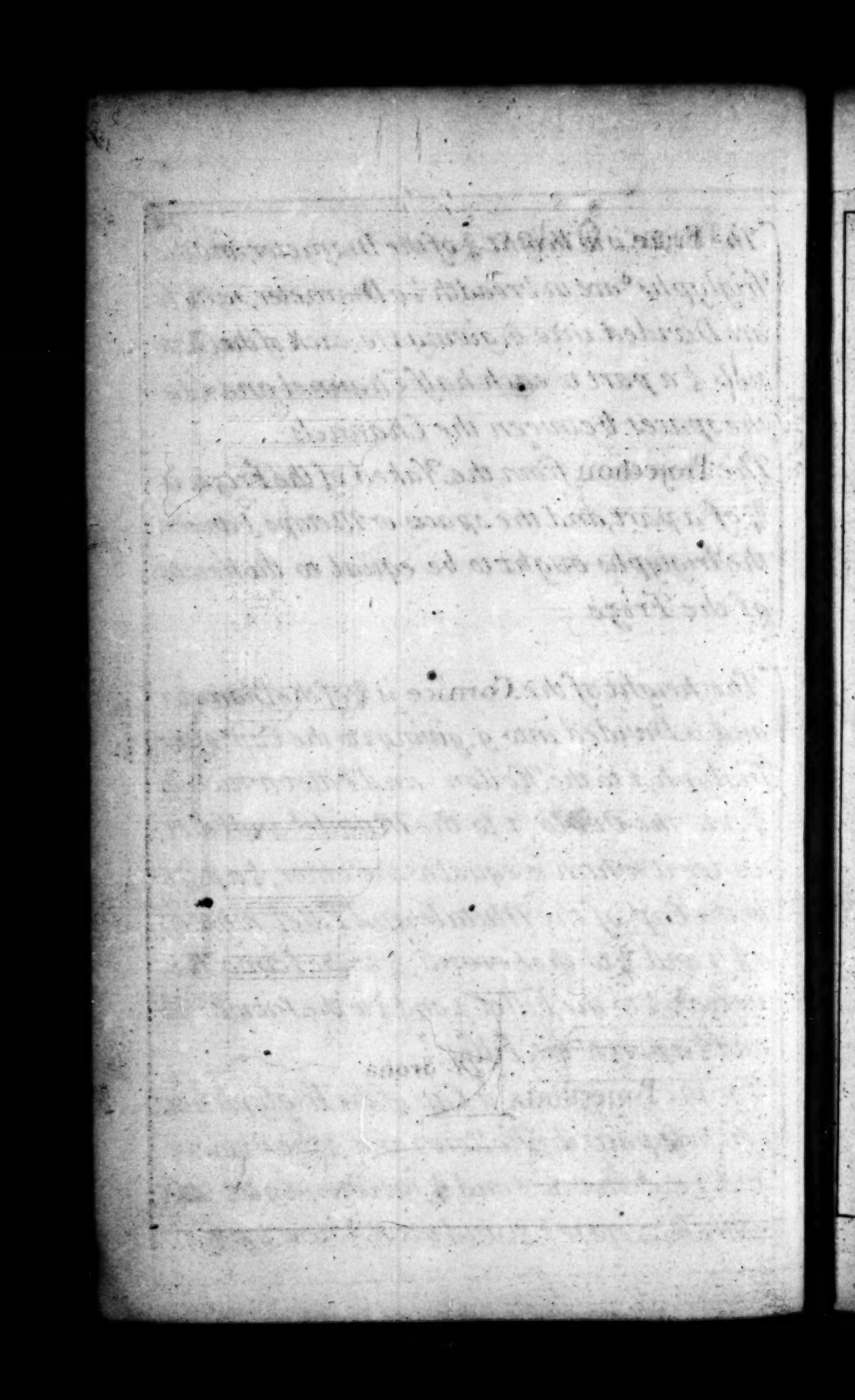
The Frize is in height ¾ of the Diameter, and the Triglyphs[d] are in breadth ½ a Diameter, which are Divided into 6, giving 1 to each of the Channels, ¼ a part to each half Channel, and 1 to the spaces between the Channels.

The Projection from the Naked of the Frize is ¾ of a part, and the spaces or Metops, between the Triglyphs ought to be equal to the height of the Frize.

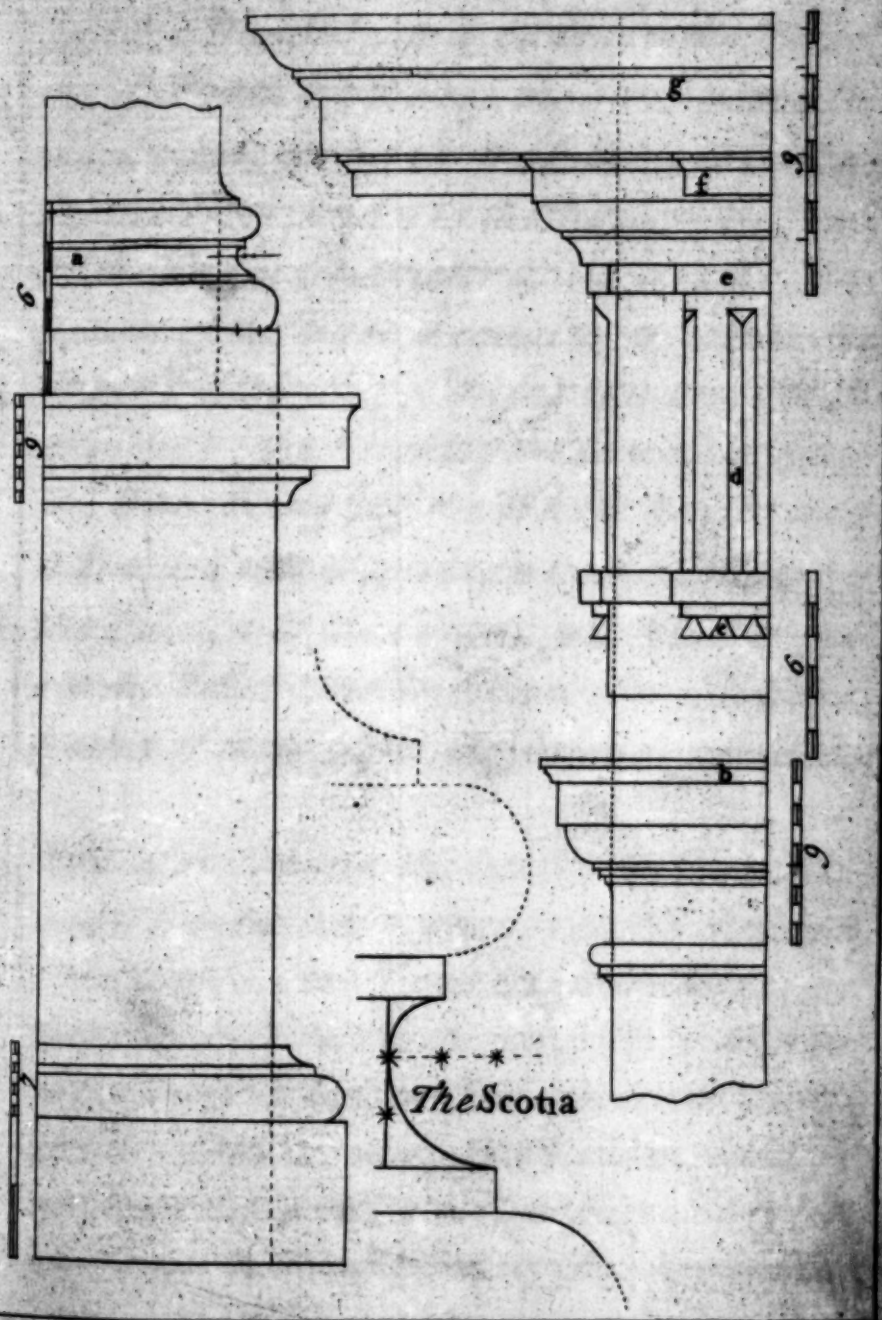
Cornice

The height of the Cornice is ¾ of the Diameter and is Divided into 9, giving 1 to the Cap[e] of the Triglyph, 1 to the Hollow and Fillet which is ⅙, 1 to the Ovolo, 1 to the Mutule[f] and Fillet under it which is equal to the other, ¼ a part to the Cap of the Mutule and Fillet which is ⅓, 1 and ¾ to the Corona, ¾ to the Scima Reversa[g], ¼ to the Fillet, 1 and ¼ to the Scima Recta, and ½ a part to the Fillet.

For the Projections, y[e] Cap of the Triglyph hath 1 of these parts, the Hollow 1 and ¾, the Ovolo 2 and ¾, the Mutule 8 and ¾, the Corona 9 & ¾, the Scima Reversa 10 & ¾, and the Whole 12 parts.



Doric Order.



Pedeſtal.

Baſe

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Ionic Order.

Pedestal.

The height of the Pedestal being 2 Diameters and ⅔, is Divided into 4, giving 1 to the Base whose Plinth is ⅓ thereof, the other part is Divided into 8, giving 1 to the Fillet, 4 to ye Cymase, 1 to the Fillet, and 2 to the Hollow, the breadth of the Die is 1 Diameter and ⅓, and the Projection of the Base is equal to its height, the upper Fillet hath 3 of these parts and the lower Fillet 7; the height of the Cornice is half the Base, being ⅛ of the Whole height, and is Divided into 10, giving 2 to the Hollow, 1 to the Fillet, 4 to the Corona, 2 to the Ogee, and 1 to the Fillet; the Projection of the Hollow hath 3 of these parts, the Corona 6, & the Whole 8.

Base

Base of the Column, the height is ⅝ a Diameter, and is Divided into 6, giving 1 and ¾ to the Plinth, 1 and ¼ to the lower Torus, ¼ to the Fillet, 1 to the Scotia, ¼ to the Fillet, 1 to the upper Torus, & ¼ a part to the Bead at Top; the Fillet above the Bead is equal to ye others, and is part of ye Column; the Projection is 2 of these parts, ⅓ thereof is for ye upper Fillet, & ⅔ for ye upper Torus; the Scotia is formed by ye Rules hereinafter Doric

The

Ionic Order

The Diminishing of this Column is $\frac{2}{3}$ of the Diameter

For the Capital Divide the Diameter into 9 parts and 4 and $\frac{3}{4}$ is the Whole height giving 1 & $\frac{2}{4}$ from the bottom of the Volutes c to the Fillet $\frac{1}{4}$ to y^e Fillet, $\frac{1}{2}$ a part to the Astragal, d 1 to the Ovolo $\frac{3}{4}$ to the Volute, $\frac{1}{4}$ to the Rim e, $\frac{1}{4}$ a part to the Ogee, and $\frac{1}{4}$ to the Fillet.

The Projection of the Ogee is 1 of these parts.

For forming the Volute describe a Circle in the Center of the Astragal, equal to the height thereof, and make the Divisions into 3 as is shewn in the Figure A, then placing one foot of the Compasses in the Center marked 1, extend the other to the top of the Rim, and describe a quarter of a Circle, and removing the foot into the Center 2, describe another quarter, and so proceeding to all the rest as they are marked. For the Diminishing of the Rim each distance between the Centers is Divided into five, and the nearest Division within the old ones, is the new Centers for y^e same.

The height of the Entablature being 1 Diameter and $\frac{2}{3}$, is Divided into 6, 2 are for the Architrave, 1 and $\frac{1}{2}$ for the Frize, and 2 and $\frac{1}{2}$ for the Cornice.

Capital

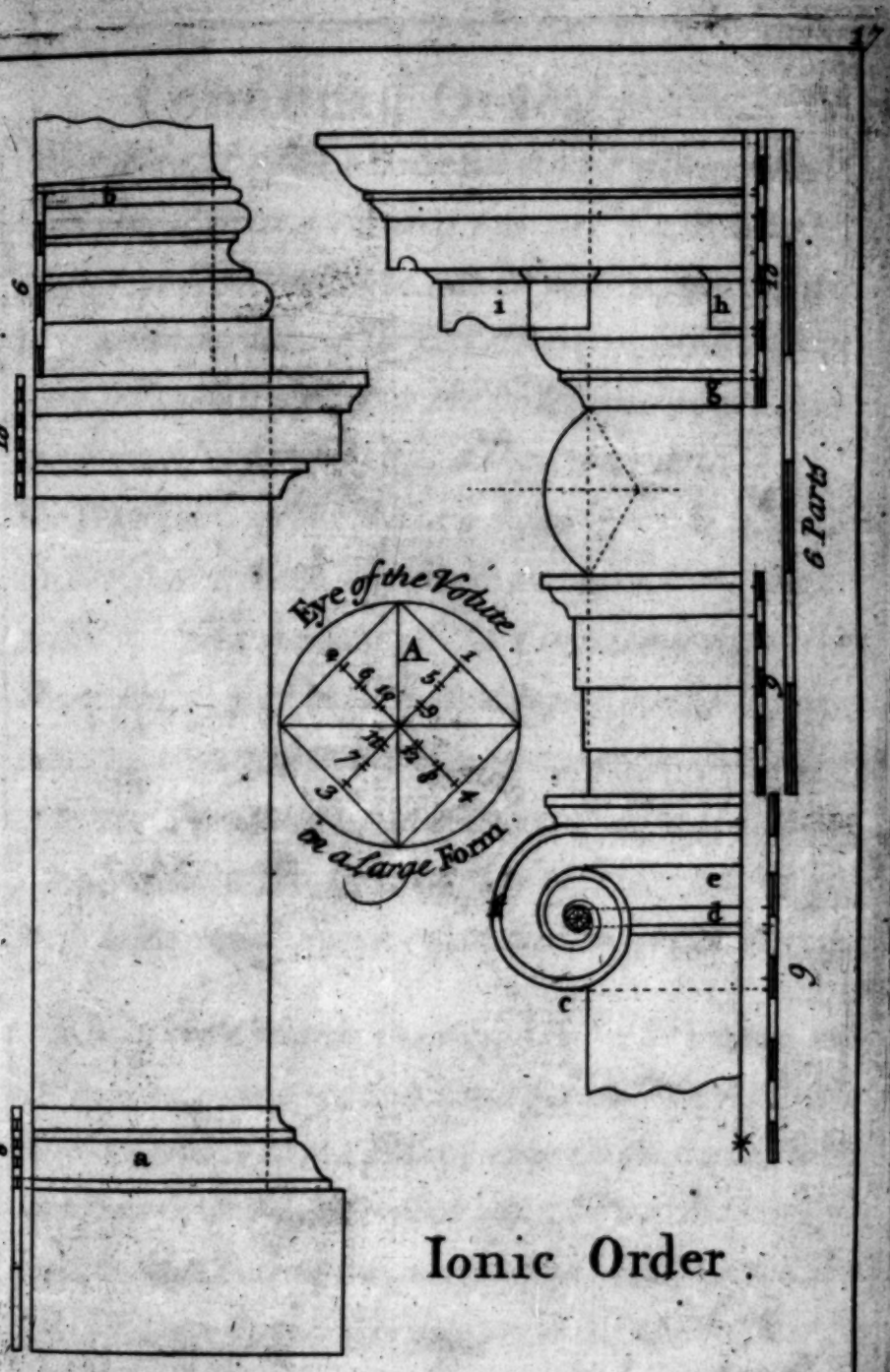
The

Architrave . Frize . Cornice .

Architrave. The Architrave is Divided into 9, giving 1 and ¾ to the first Face, 2 and ½ to the 2d, and 3 to the third, 1 and ¼ to the Ogee, and ½ a part to the Fillet. The Projection of the 2d and 3d Faces have a quarter of a part each, and the Whole 2 of these parts.

Frize. The Frize is formed with such a part of a Circle which answers to the Naked and Projection of the Architrave.

Cornice. The Cornice is Divided into 10 parts, giving 1 to the Cavetto, ¼ to the Fillet, 1 and ¼ to the Ovolo, ¼ to the Fillet, 1 and ¾ to the Modillions, ½ a part to the Caps, 1 and ¾ to the Corona, ¾ to Scima Reversa, ¼ to the Fillet, 1 and ¾ to the Scima Recta, and ½ a part to the Fillet. For the Projections the Hollow has 1 of these parts, the Ovolo 2; the breadth of ỹ Modillion is ⅙ of the Diameter, and the inside is Perpendicular to the Naked of the Column at top; and one being in the middle, gives ỹ space between; the Return'd one projects 5 & ½, ỹ Cap 6, ỹ Corona 7 & ½, ỹ Scima Reversa 8 ¼, and ỹ Whole 10, being equal to ỹ height



Ionic Order.

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Corinthian Order.

Pedestal

The height of the Pedestal being 3 Diameters is Divided into 4, giving 1 to the Base whose Plinth is $\frac{2}{3}$ thereof, the other part is Divided into 9, giving $2\frac{1}{2}$ to the Torus, $\frac{1}{2}$ a part to the Fillet, 3 to the Cymase, $\frac{1}{2}$ a part to the Fillet, and $2\frac{1}{2}$ to y^{e} Ogee, the breadth of the Die is a Diameter and $\frac{2}{5}$. The Projection of the Base is equal to its height, the upper Fillet hath 3 of these parts, and the lower Fillet 7. The height of the Cornice is half the Base being $\frac{1}{2}$ of the Whole height, and is Divided into 11, giving $1\frac{1}{2}$ to the Ogee, $\frac{1}{2}$ a part to the Fillet, 3 to the Cimatium, 3 to the Corona, 2 to the Ogee, & 1 to the Fillet. The Projection of the Fillet hath 2 of these parts, the Cymace $4\frac{1}{2}$, the Corona $6\frac{1}{2}$ & y^{e} Whole $8\frac{1}{2}$.

Base

Base of the Column the height is $\frac{1}{2}$ a Diameter, and is Divided into 6, giving 1 and $\frac{3}{4}$ to the Plinth, 1 to the lower Torus, $\frac{1}{4}$ to the Fillet, $\frac{1}{2}$ a part to the Scotia, 1 to the Astragals & Fillets (which must be parted into 6, giving 1 to each Fillet, & 2 to each Astragal) $\frac{1}{2}$ a part to y^{e} Scotia, $\frac{3}{4}$ to y^{e} Fillet, & y^{e} other $\frac{3}{4}$ to y^{e} upper Torus, the Fillet above the said Torus is equal to the others & part of y^{e} Column.

The Projection is $\frac{1}{5}$ of the Diameter, and the upper

upper Fillet hath 1 of the said 6 parts, & upper Torus and lesser Fillets $1\frac{1}{6}$, and $1\frac{3}{4}$ to the Astragals, and lower Fillet.

The Diminishing of this Column is $\frac{1}{7}$ of y^e Diameter.

Capital

For the Capital, Divide the Diameter into 6 parts, and take 7 such parts for y^e Whole height, giving 2 to each height of Leaves (whose heads turn down half a part thereof) another part to the Stalks whose heads turn down $\frac{2}{3}$ thereof, $\frac{3}{4}$ to the small Volutes, $\frac{1}{4}$ to the Fillet, the large Volute is as high as the said Fillet, $\frac{1}{2}$ a part to the Hollow and $\frac{1}{2}$ a part to the Ovolo whose Fillet hath $\frac{1}{3}$ thereof. For the Projection, make a Square each side being a Diameter and $\frac{1}{2}$ and draw the Diagonals (See the Composite Order) and towards each Angle mark a Diameter from y^e Center, & draw y^e Cants at Right Angles with y^e said Diagonals, then for y^e Curvature of y^e Abacus, make an Equilateral Triangle (y^e part of y^e Square cut off by the Cants being y^e Base) and y^e opposite Angle is the Center. In the Circumference of y^e Column are 8 Leaves, each Leaf having 4 Plants, & each Plant 5 Raffles. The Projection of their Heads is found by a strait Line from y^e Abacus to y^e Colerino

th

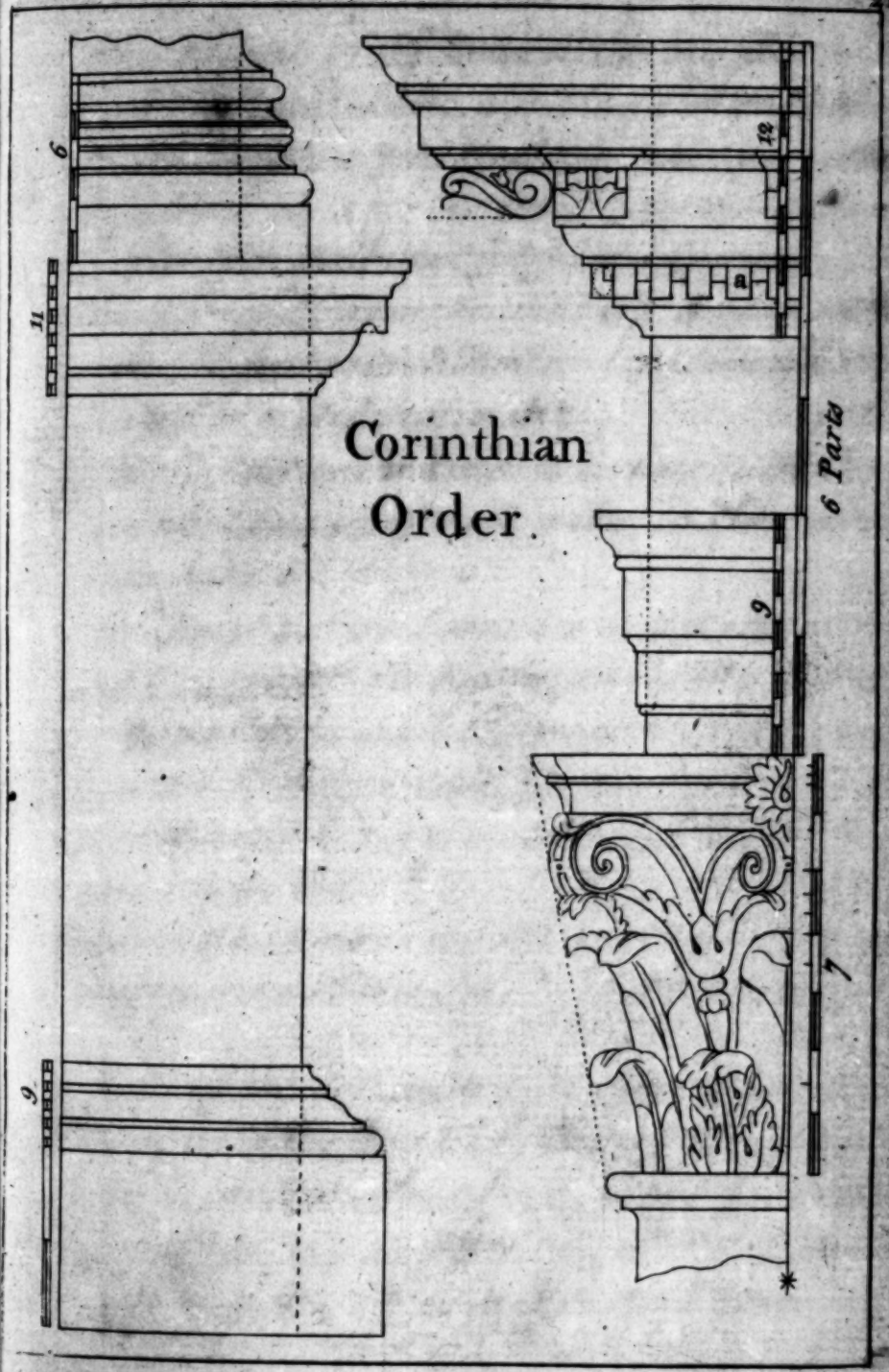
The Rose is as high as the Volute, and projects as the side of y^e before mention'd Square. The height of the Entablature being 9 Diameters, is Divided into 60, 9 are for y^e Architrave, 12 for y^e Frize, & 24 for the Cornice.

Architrave.

The Architrave is Divided into 9, giving 1 2/60 to the first Face, 1/4 to the small Bead, 2 to y^e second Face, 3/4 to the small Ogee, 2 3/4 to the third Face, 1/2 a part to the Bead, 1 to the Ogee, and 1/2 a part to the Fillet. The Projection of the second Face hath 1/2 of a part, the third Face 1 of these parts, and the Whole two.

Cornice.

The Cornice is Divided into 12 parts, giving 1/4 to the Ogee, 1/4 to the Fillet, 1 and 1/4 to the Dentills, 1/4 to the Fillet, 1 1/4 to the Ovolo, 1/4 to the Fillet, 2 to the Modillions, 1/2 a part to the Ogee, and 1/4 to the Fillet, 1 & 3/4 to the Corona, 3/4 to the Scima-Reversa, 1/4 to the Fillet, 1 & 1/2 to y^e Scima Recta, & 1/4 a part to the Fillet. For the Projections, y^e Ogee is 1 1/2 of these parts, the Dentill 1 1/2, the said Dentills are in breadth 2/3 of their height, & the spaces 2/3 of their breadth. The Modillion projects 3 & 3/4, and its breadth is 2/3 of the Diameter, and one being in the Center gives y^e 5 spaces; the Return'd Modillion 8 & 1/2; the Cap 9; the Corona 9 & 1/2; the Scima Reversa 10 1/2, & y^e Whole 12, being equal to y^e heig



Corinthian Order.

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Composite Order.

Pedestal

The height of the Pedestal being 3 Diameters and $\frac{1}{3}$ is Divided into 4, giving 1 to the Base whose Plinth is $\frac{2}{3}$ thereof: the other part is Divided into 10. 3 for the Torus, 1 for the Astragal, $\frac{1}{2}$ a part for the Fillet, 3 $\frac{1}{2}$ for the Cymase, 1$\frac{1}{2}$ for the Astragal, $\frac{1}{2}$ a part for the Fillet which finishes to the Naked with a Hollow; the breadth of the Naked is a Diameter and $\frac{2}{3}$.

The Projection is equal to its height, the upper Astragal hath 3 of these parts, and the lower Astragal 8.

The height of the Cornice is half the Base being $\frac{3}{8}$ of the Whole height, and is Divided into 12 parts, giving $\frac{1}{4}$ a part to the Fillet, 1 and $\frac{1}{2}$ to the Astragal, 3 and $\frac{1}{2}$ to the Cymace, $\frac{1}{2}$ a part to the Fillet, 3 to the Corona, 2 to the Ogee and 1 to the Fillet.

For the Projections, the Astragal hath 2 & $\frac{1}{2}$ of these parts, the Fillet 6, the Corona 7, & the Whole 9.

Base.

Base of the Column, make use of the same Base as in the foregoing Order, (the Attic-Base in the Doric, may very properly be made use of, for this and also for the Ionic and Corinthian Orders; especially in Work exposed to

to the (Weather) therefore, instead of placing it there again, is shewn the Plan[a] of either of the Capitals, as mentioned in ye Corinthian Order.

The Diminishing of this Column is ye same as ye last.

Capital.

The height of the Capital is a Diameter and $\frac{1}{6}$ and being Divided into 7, give 2 to each height of Leaves whose heads turn down $\frac{3}{4}$ a part, $\frac{2}{3}$ of a part to the Space betwee[n] ye Leaves and Fillet, $\frac{1}{3}$ to the Astragal and Fillet which is $\frac{2}{3}$ of that, $\frac{2}{3}$ to the Ovolo, $\frac{1}{3}$ to ye Space between the Ovolo and Abacus, $\frac{2}{4}$ a part to the Hollow, and $\frac{2}{4}$ a part to the Ovolo, whose Fillet hath $\frac{1}{3}$ thereof.

The Projection is the same as the Corinthian. The height of the Entablature being 2 Diameters, is Divided into 6, giving 2 to the Architrave 1 and $\frac{2}{4}$ to the Frize, and 2 $\frac{1}{2}$ to the Cornice

Architrave.

The height of the Architrave is Divided into 9, giving 2 and $\frac{1}{2}$ to the first Face, $\frac{2}{2}$ a part to the Ogee, 3 and $\frac{1}{4}$ to the second Face, $\frac{2}{4}$ to the Astragal, $\frac{3}{4}$ to the Ovolo, 1 to the Hollow, and $\frac{1}{2}$ a part to the Fillet.

The Projection of the second Face, hath $\frac{2}{3}$ a part, the Ovolo 1 and $\frac{2}{4}$, and the Whole 2.

The

Enze . Cornice .

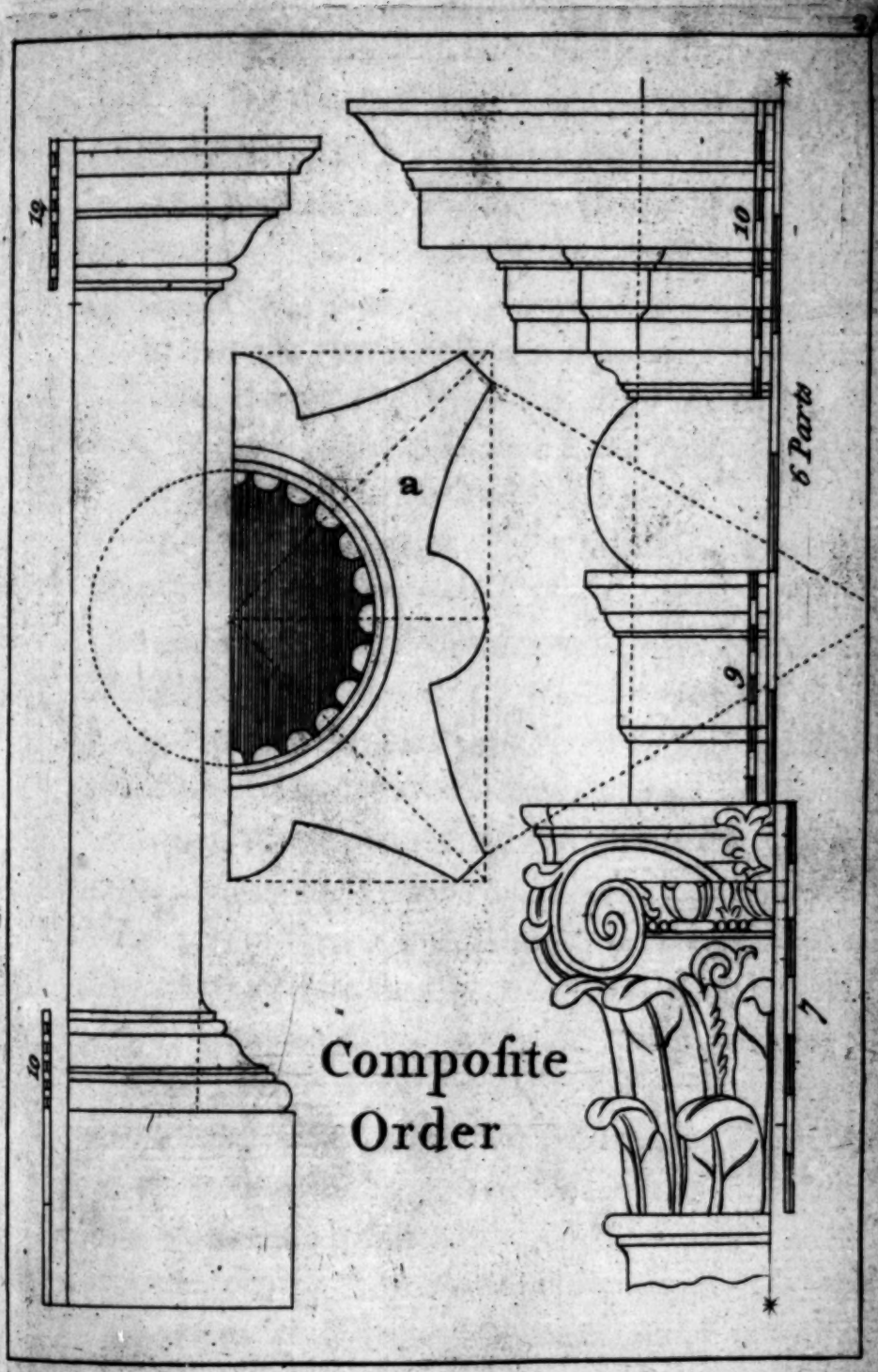
Frize.

The Frize is formed after the same method as the Ionic, being part of a Circle that answers to the Naked and Projection of the Architrave.

Cornice.

The Cornice is Divided into 10 parts, giving $\frac{1}{4}$ of a part to the Fillet, as much to the Astragal, 1 part to the Ogee, another to the first Face of the Modillions, $\frac{3}{4}$ a part to the Ogee, 1 and $\frac{1}{4}$ to the second Face, $\frac{3}{4}$ to y^e Fillet, $\frac{1}{2}$ a part to the Ovolo, 2 to the Corona, $\frac{3}{4}$ to the Scima Reversa, $\frac{3}{4}$ to the Fillet, 1 and $\frac{1}{4}$ to the Scima Recta, and $\frac{1}{4}$ a part to the Fillet.

For the Projections, the Ogee hath 1 and $\frac{1}{2}$ of these parts, the upper Face of the Modillions in front 2, but is 2 and $\frac{1}{2}$ in breadth, (viz) $\frac{1}{4}$ a part within the Naked, the Cap thereof $\frac{1}{4}$ a part, the Return'd Modillion 4 and $\frac{1}{2}$, and its Cap, 5, y^e Corona 7 and $\frac{1}{4}$, the Scima Reversa 8 and $\frac{1}{4}$, and the Whole 10, being equal to the height.



Compofite
Order

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Impoſts *of* Arches.

Any height being given, (for either of them) is Divided into Nine *parts.*

Tuſcan. *In the* Tuſcan, *the Facia or Band hath* 3, *the Ogee* 1, *the Fillet* $\frac{2}{3}$ *a part, the Corona three, and the Band* $1\frac{1}{2}$. *For the* Projections, *the Facia hath* $\frac{1}{2}$ *a part, the Ogee* 2, *ỹ Corona* 3 *&* ỹ *Whole* $3\frac{2}{3}$.

Doric. *In the* Doric, *the Frize is* 2, *the Fillet* $\frac{2}{4}$, *the Astragal* $\frac{3}{4}$, *the Scima Recta* $2\frac{2}{4}$, *the Fillet* $\frac{2}{4}$, ỹ *Corona* 2, *the Ogee* 1, *and the Fillet* $\frac{2}{4}$ *a part. For the* Projections, *the Fillet hath* $\frac{2}{6}$ *a part, the Astragal* 1, *the Corona* $2\frac{2}{3}$, *and the Whole* 3 *and* $\frac{2}{3}$.

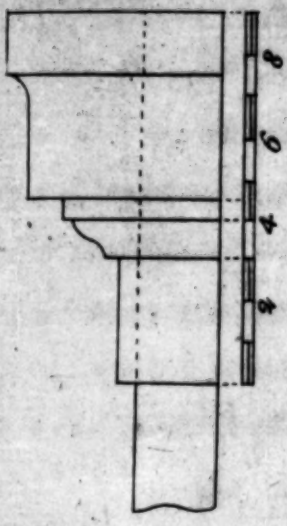
Ionic. *In the* Ionic, *the Fillet hath* $\frac{2}{3}$ *a part, the Scima* 4, *the Fillet* $\frac{2}{4}$, *the Ovolo* $1\frac{2}{4}$, *the Corona* $1\frac{1}{2}$, ỹ *Ogee* 1, *and the Fillet* $\frac{2}{3}$ *a part. For the* Projections *the Scima hath* $1\frac{3}{4}$, *the Corona* $2\frac{2}{3}$, *and* ỹ *Whole* $3\frac{2}{3}$.

Corinthian. *In the* Corinthian, ỹ *Frize hath* $1\frac{3}{4}$, ỹ *Fillet* $\frac{2}{4}$, *the Astragal* $\frac{1}{2}$ *a part,* ỹ *Scima* $2\frac{2}{4}$, ỹ *Fillet* $\frac{2}{4}$, ỹ *Ovolo* 1, ỹ *Corona* $1\frac{1}{2}$, ỹ *Ogee* 1, *&* ỹ *Fillet* $\frac{2}{3}$ *a part. For* ỹ Projections ỹ *Fillet hath* $\frac{2}{4}$, ỹ *Astragal* $\frac{2}{4}$, ỹ *Scima* $1\frac{3}{4}$, ỹ *Corona* $\frac{2}{3}$ *&* ỹ *Whole* $3\frac{2}{3}$.

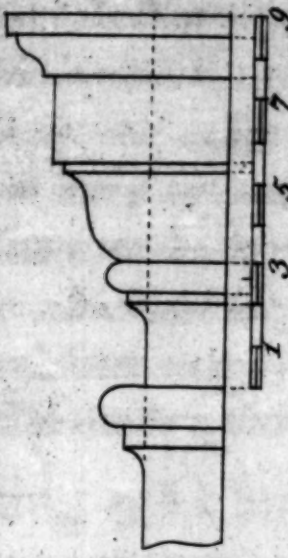
Compoſite. *In* ỹ Compoſite, ỹ *Frize hath* 2, ỹ *Fillet* $\frac{2}{4}$, ỹ *Astragal* $\frac{3}{4}$, ỹ *Ovolo* 1, ỹ *Fillet* $\frac{2}{4}$, ỹ *Scima* $1\frac{2}{3}$, ỹ *Fillet* $\frac{2}{4}$, ỹ *Corona* $1\frac{2}{4}$, ỹ *Ogee* 1, *&* ỹ *Fillet* $\frac{2}{3}$ *a part. For* ỹ Projections, ỹ *Fillet hath* $\frac{2}{4}$, ỹ *Astragal* $\frac{2}{4}$, ỹ *Ovolo* $\frac{2}{4}$, ỹ *Scima* $2\frac{2}{4}$, ỹ *Corona* $2\frac{1}{2}$, *&* ỹ *Whole* $3\frac{2}{3}$.

Collerino. *The* Collerino *of each of the laſt* 4 *Orders is* 1 *of these parts, and the Fillet* $\frac{2}{3}$ *a part more. For the* Projections, *the Fillet is* $\frac{2}{3}$ *a part, and the Whole* $1\frac{2}{4}$

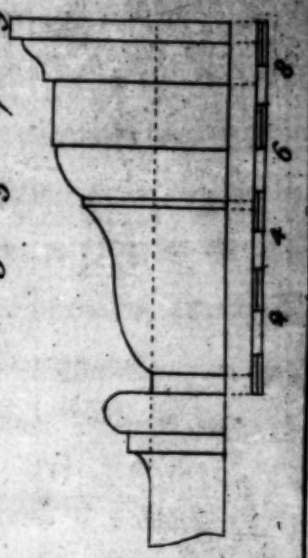
Tuſcan



Doric

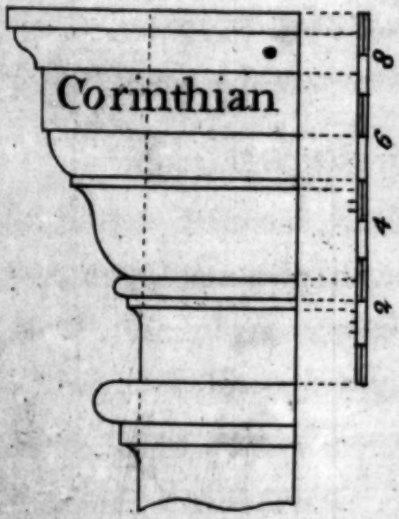


Ionic

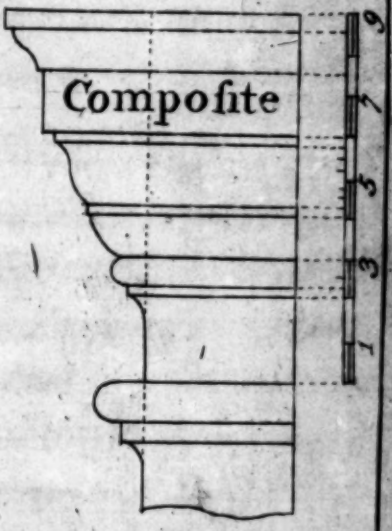


Impoſts *of* Arches *by a Diviſion of* 9

Corinthian



Compoſite



BRITISH MUSEUM

Diminution of Columns.

Divide the length of the Shaft into 3, and describe the Semicircle A, on the Diameter of which, set the Diminishing ○○ from each side, and raising Perpendiculars will be the Diameter at Top; then divide ye upper ⅔ of ye Shafts length into 4 equal parts, or more, even to 16, or 20, when ye Columns are large, and ye outer part of ye Semicircle into a like number, from wch raise Perpendiculars as in ye Scheme, & ye intersections, as at 1, 2. 3, 4, are ye points of Diminution, thro' wch ye Curve-line must pass

Fluting of Columns.

The Doric hath 20 in number having no List or space between them, they are formed by an Equilateral Triangle,[B] or by ye Center of a Square.[C] The other 3 Orders have each 24 in number, & are formed by a Semicircle,[D] only ye Ionic is some times Cabled, [E] ⅓ of ye Shaft from ye Base.

Formation of Mouldings.

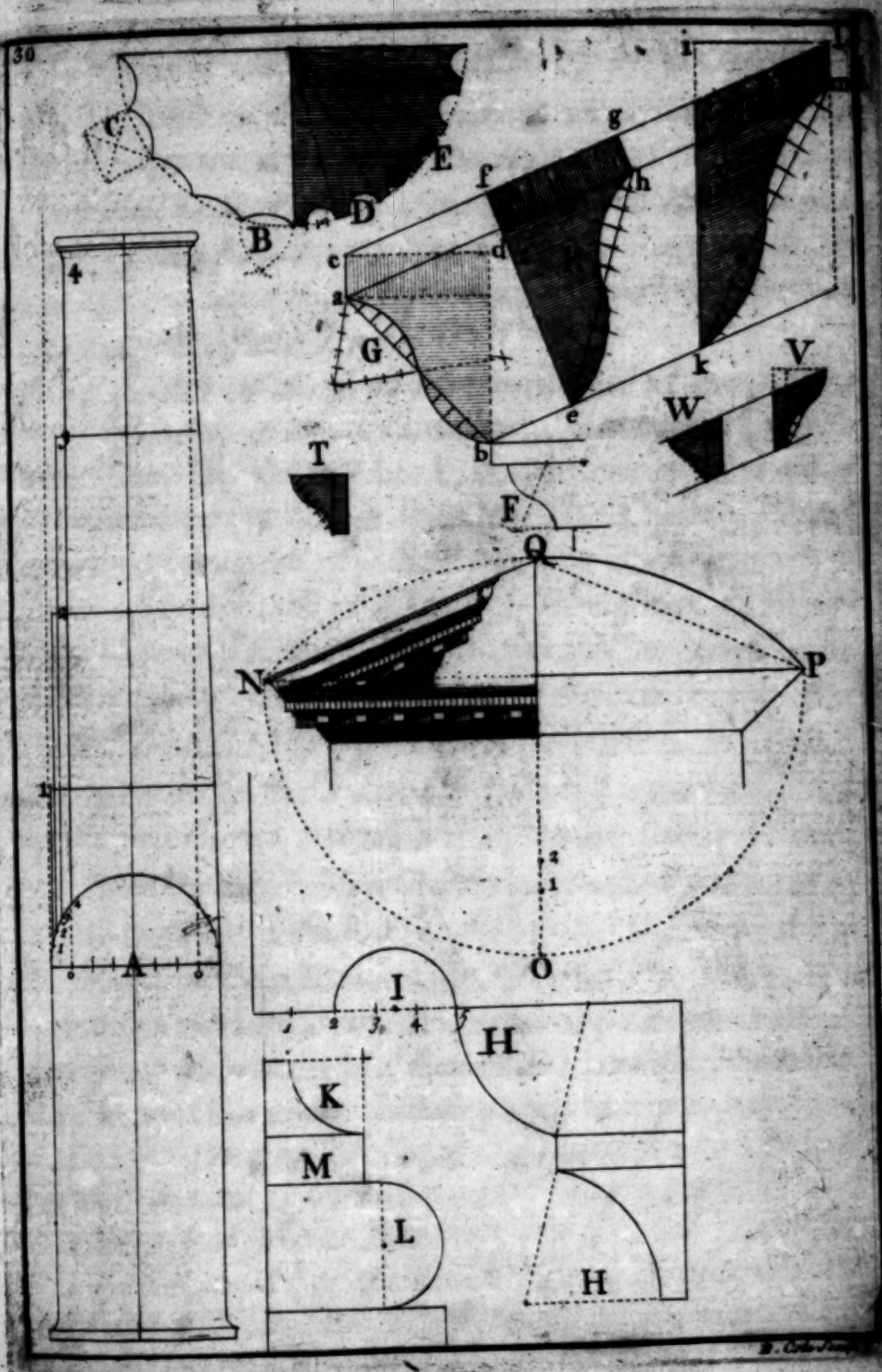
The Ogees, or Sima's Recta, and Reversa, are usually formed by Triangles,[F] or take ⅚ of half ye Diagonal for ye Radius.[G] For all Cavetto's & Ovolo's find ye Center on the level Lines.[H] For Corona's having a Throat,[I] take ⅔ for ye Semicircle, & 2 for ye Drip, Hollows[K] are a quarter of a Circle, and Astragals[L], a Semicircle, tho' ye Center is often beyond ye Fillet[M], as their projecture is limited.

Are usually formed by describing the Semicircle N.O.P. *and with the Radius* N.O. *from ye Center* O, *draw the Pediments Arch, or Pitch* N.Q.P.

Note to raise ye Pitch of ye Pediment, ye Center may be varied as above.

Raking Mouldings.

The Common Cornice being a, G, b, *draw the Pitch or Rake lines of the Pediment, from ye points* c, a, b, *and ye line* e, f, *at Right Angles, is the height of the Fillet & Sima, then set off the projecture of the Common Cornice* c, d, *at* f, g, *and the Diagonal* e, h, (*being Divided into the same Number of equal parts as the Diagonal* a, b, *transfering the distance of the Cove line from the Diagonal* a, b, *at each Division, to the Diagonal* e, h, *correspondently*) *will form the Mould* R, *which will* Coin, *or* Miter, *with the Cornice* G. *Again in Open Pediments, for the Return'd Cornice* S, *take the Perpendicular* i, k & *set the Common projecture* c, d, *from* i *to* l, *then draw, Divide, and set off the Diagonal* k, m, *as before, wch forms the Moulding* S, *Mitering to ye Cornice* R. *For the Caps of Modillions, observe ye front is ye common Mould* T, *the Elevated part* V, & *ye Depressed part* W, *are formed by ye foregoing method. The Ovolo and Hollow* X, *hath also ye Common Mould in front, and is enlarged by the same Rule.*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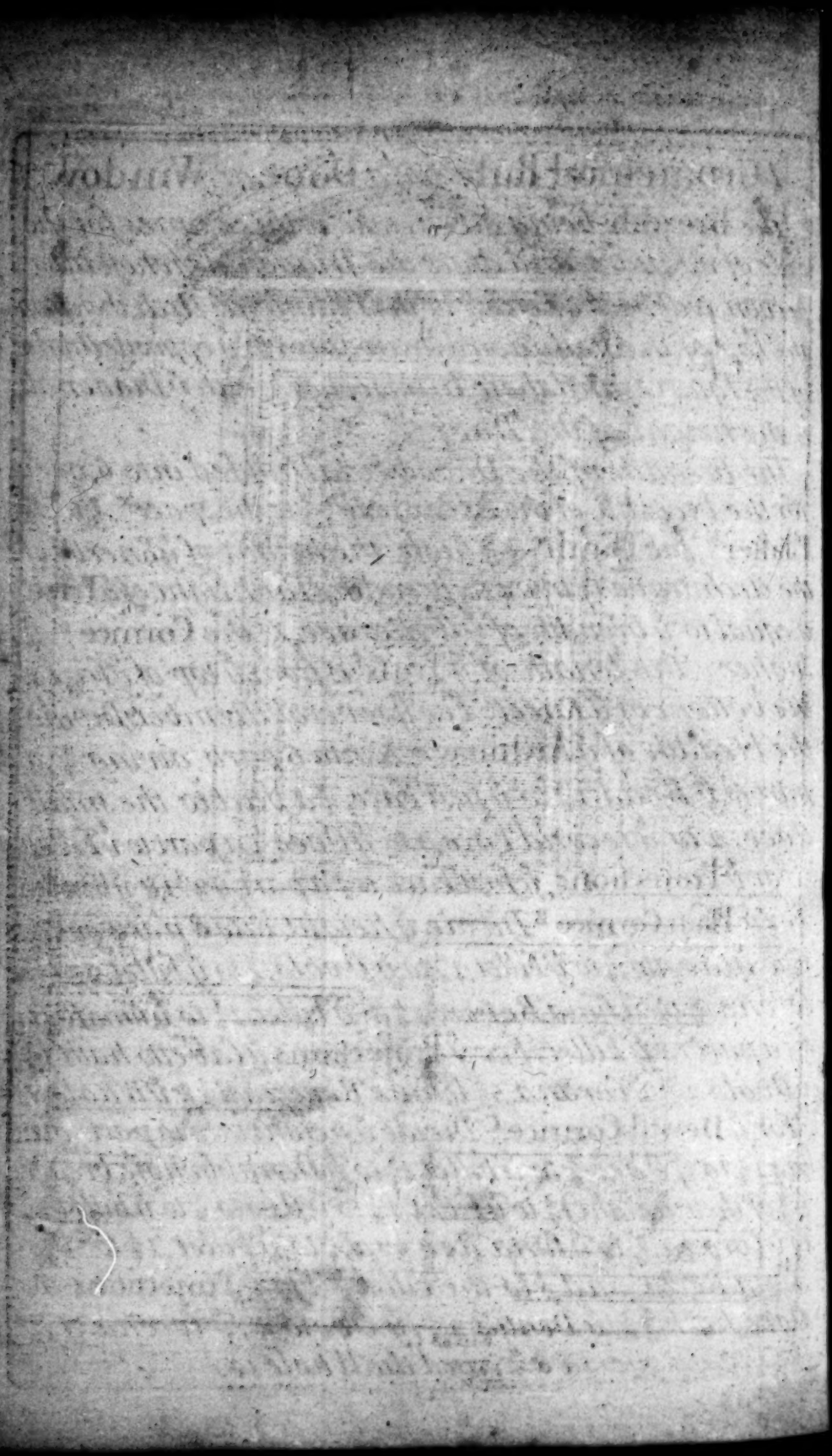
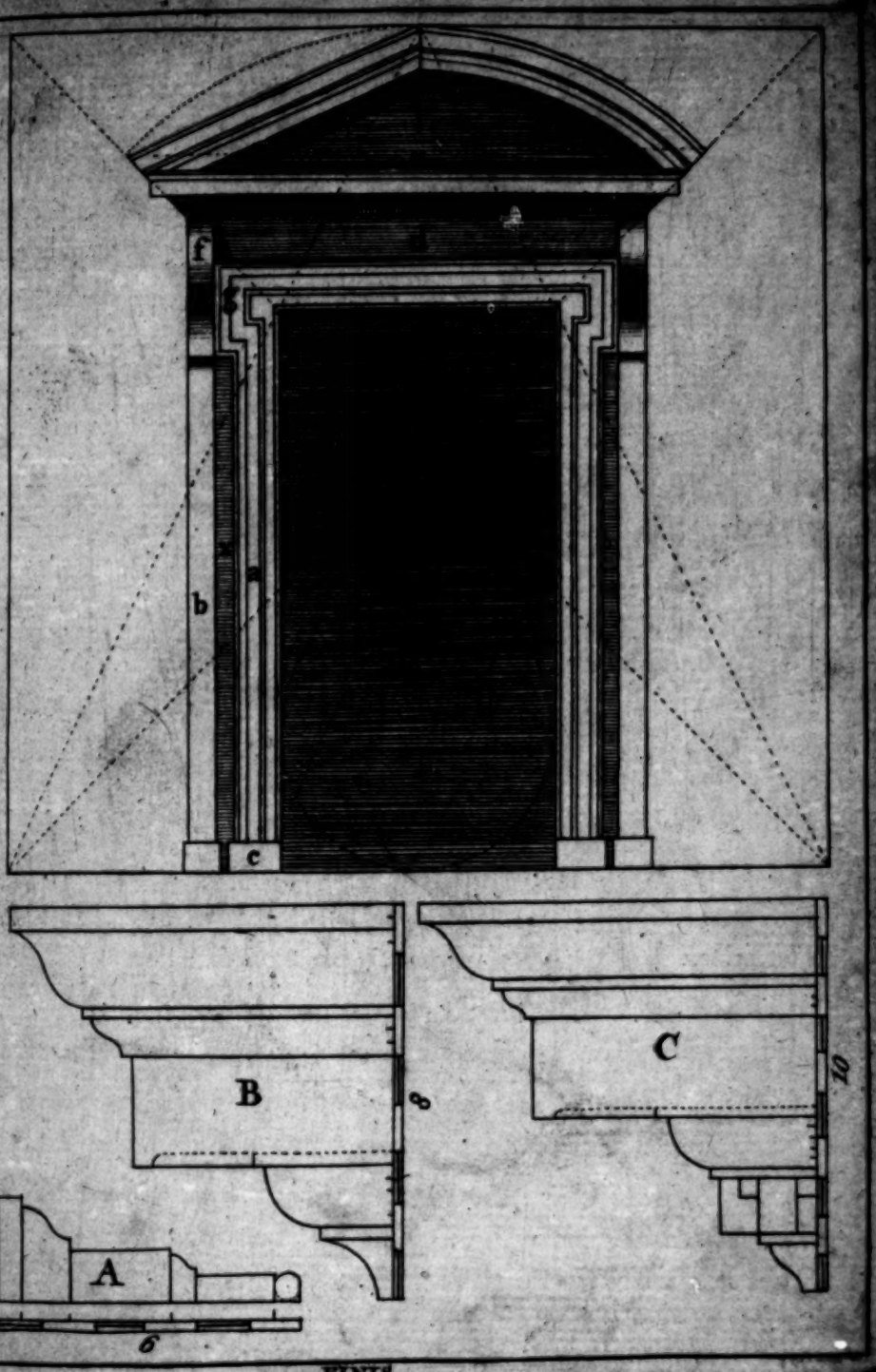
BRITISH MUSEUM

A Geometrical Rule for a Door or Window

The breadth being given, take it three times for the side of a Square, and draw the Diagonals, whose Intersection will be the Center of the Pediments Arch, then from the Top of the Pediment, draw Lines to ỹ opposite Angles of the Square, and their Intersection with ỹ Diagonals, is the height of the Door.

The breadth of the Door being Divided into 6, one is for the breadth of the Architrave[a], $\frac{1}{3}$ to the Space[x], $\frac{2}{3}$ to the Pilaster[b], the Plinth[c] is $\frac{2}{3}$ high; the height of ỹ Kneel[g] of the Architrave is twice its breadth. The height of ỹ Frize[d] is equal to ỹ breadth of ỹ Architrave, & the Cornice[e] $\frac{1}{4}$ higher. The length of ỹ Truss[f] is from ỹ top of ỹ Frize to the bottom of ỹ Kneel. For ỹ several Members, Divide the breadth of ỹ Architrave A into 6 parts, giving $\frac{1}{2}$ a part to ỹ Bead, $1\frac{1}{2}$ to ỹ first Face, $\frac{1}{2}$ a part to the small Ogee, 2 to ỹ second Face, 1 to ỹ Ogee, $\frac{1}{2}$ a part to ỹ Fillet. For ỹ Projections, ỹ first Face is $\frac{1}{2}$ a part, ỹ 2d 1, & ỹ Whole 2. For ỹ Plain Cornice B Divide ỹ height into 8 parts, giving $1\frac{1}{4}$ to ỹ Cavetto, $\frac{1}{4}$ to ỹ Fillet, $1\frac{1}{4}$ to ỹ Ovolo, $\frac{1}{4}$ to ỹ Fillet, 2 to ỹ Corona, $\frac{3}{4}$ to ỹ Sima Reversa $\frac{1}{4}$ to ỹ Fillet, $1\frac{1}{2}$ to ỹ Sima Recta & $\frac{1}{2}$ a part to ỹ Fillet. For ỹ Projections ỹ Cavetto hath $1\frac{1}{2}$, ỹ Ovolo $2\frac{1}{2}$, ỹ Corona $5\frac{1}{2}$ ỹ Sima Reversa $6\frac{1}{2}$, & ỹ Whole 8. For ỹ Dentil Cornice C Divide ỹ height into 10 parts, giving $1\frac{1}{2}$ to ỹ Ogee, $\frac{1}{4}$ to ỹ Fillet, $1\frac{1}{2}$ to ỹ Dentils (whose breadth is $\frac{2}{3}$ of their height) $\frac{1}{4}$ to ỹ Fillet, $1\frac{1}{4}$ to ỹ Ovolo, $\frac{1}{4}$ to ỹ Fillet, $2\frac{1}{4}$ to ỹ Corona, $\frac{3}{4}$ to ỹ Sima Reversa, $\frac{1}{4}$ to ỹ Fillet, $1\frac{1}{2}$ to the Sima Recta, and $\frac{1}{2}$ to the Fillet. For ỹ Projections the Ogee hath $1\frac{1}{2}$, ỹ Dentils $2\frac{1}{2}$, ỹ Ovolo 4, ỹ Corona $7\frac{1}{2}$, the Sima Reversa $8\frac{1}{2}$, and the Whole 10.





FINIS.